



**SBIR/STTR SUCCESS**

LI-COR's  
Odyssey®  
imager  
supports a  
wide range of  
biotechnology  
applications

# LI-COR BIOSCIENCES

“Our mission is to help scientists find better answers to their questions. We believe that data of exceptional quality provides answers with exceptional clarity. In turn, the results help improve the world where we live and the quality of individuals' lives.” These words form the basis for LI-COR Biosciences technology solutions. The company was first put on the map thanks to its innovative and portable technology, but the company's ability to seek out and find new opportunities has helped to keep it there. LI-COR developed the first commercially viable Portable Photosynthesis System allowing scientists to see simultaneous conductance and photosynthetic values in the field.

## PHASE III SUCCESS

LI-COR received its first SBIR award in 1994 with 98 employees and has now grown to 336 across the globe today

## AGENCIES

NIH, DOE, NSF

## SNAPSHOT

LI-COR has launched more than 50 new products for cutting edge research including drug discovery, global climate change, industrial environmental monitoring, and disease process investigation.

## LI-COR BIOSCIENCES

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LI-COR was founded in 1971 and received its first SBIR award in 1994 with 98 employees and has now grown to 336 across the globe today. Since 2001, LI-COR has launched more than 50 new products for cutting edge research including drug discovery, global climate change, industrial environmental monitoring, and disease process investigation, and has more than 30,000 customers in more than 100 countries using LI-COR instruments.

“If you want to be successful, the ideal product is one that provides an answer to a question or solution to a problem that cannot be found any other way,” says Bill Biggs. LI-COR Chairman and co-founder.

The company's growth strategy and overarching business philosophy are grounded in the principles developed by Mr. Biggs. The company's product offerings strive to go beyond providing simple instrumentation capabilities based on the idea that “technologies are platforms, not just instruments,” allowing users to do more than just measure by including analytical capabilities as well. LI-COR's two main product lines are environmental and biotechnology. Despite serving two very different industries the company relies upon the same keys to success – developing quality solutions. Furthermore, working in different industries provides financial security, if one area is slower, the other sector may help to off-set that. Another principle established by Biggs was the concept of remaining debt-free - this principle helps the company to be very nimble and sustainable.

“We use SBIR to help us mitigate risk, it helps financially, but it also helps a company learn about the grant process, setting-up experiments, and provides a platform for validation through peer-review,” Jon Anderson Manager of Advanced Research & Development noted when discussing LI-COR's work with SBIR. One example of the company's success

through SBIR relates to a \$75,000 SBIR grant to develop a new open-path carbon dioxide analyzer for measuring gas fluxes with a return on investment that literally changed the world. Two years after receiving this award the company released the analyzer that could measure both carbon dioxide and water vapor simultaneously at high speed with precision and accuracy. The instrument has become a standard used worldwide. LI-COR estimates that more than 80 percent of the measurements examining carbon balance of agricultural and natural ecosystems have been made using LI-COR instruments. Much of what we now know about how climate change might influence ecosystems comes from data provided by these instruments. LI-COR's technology, developed with the help of SBIR funding, has made this specific type of scientific work possible.

While the company's focus has been agricultural and environmental instrumentation, the team saw synergies with the biotech industry and began to adapt its tools for the new market. Another SBIR success for the company is its Odyssey® imager tool developed through the NIH SBIR program, this solution supports a wide range of biotechnology applications that benefit from sensitive, near-infrared fluorescence detection and Frost & Sullivan also recognized LI-COR for its Odyssey Infrared Imaging System as the 2006 North American Drug Discovery Technologies Product of the Year. This diversification has enabled the company to thrive, even during challenging times. By working in multiple industries slow times for one industry may be off-set by the other sectors.



LI-COR provides a variety of environmental monitoring products.

Anderson reiterated one of Biggs' lessons, "We hire for talent more than experience, and we look for people who can tackle tough problems. We won't settle for second best." The company has worked to establish a culture of innovation and LI-COR's scientists and engineers are actively involved in the Nebraska, national and global research community by conducting seminars, participating and presenting research in scientific meetings, and publishing work in leading journals. The company's home state of Nebraska has helped LI-COR to succeed by providing a variety of growth and development opportunities. LI-COR's research team has mentored Nebraska researchers interested in SBIR/STTR funding and has developed excellent relationships with Nebraska economic development organizations. For example, LI-COR has collaborated with the Nebraska Business Development Center (NBDC) SBIR/STTR service program by giving presentations at SBIR/STTR workshops, by participating in the SBIR/STTR advisory board and by acting as an advocate for SBIR/STTR funding in the state of Nebraska. LI-COR Biosciences is a global leader in developing and marketing innovative, high quality instrument systems used in the fields of biological and environmental sciences, climatology, molecular biology, and translational research.